

[Return to Laboratory Evaluations](#)**64-26 Impak Acrylic (Project 01-25) (11/01)**

Impak is a clear or pink-fibered, thermoplastic acrylic that was originally developed in the 1960s for sport mouthguards. Currently it is also indicated for nightguards, sleep apnea appliances, orthodontic retainers, surgical splints, and dentures. Impak is packaged as a powder and ethyl methacrylate monomer which, at the time of use, are mixed and then heat cured at 165 F for five hours. Impak is prepared and processed using procedures similar to those used for conventional heat cured denture acrylics (wax-up, flasking, boilout, and packing). The manufacturer claims that it bonds to traditional methyl methacrylate acrylics. Impak is said to be stiff or rigid when cold, but soft and pliable at intraoral temperatures. Because of this, appliances made of Impak

purportedly have advantages over those made with traditional acrylics, such as greater patient comfort and minimal need for cast blockout. It's manufacturer also claims that decreasing the powder/ liquid ratio results in a softer appliance and increasing the powder/ liquid ratio results in a stiffer appliance. Impak is available in a set of one pound of powder and 11 ounces of liquid or six pounds of powder and 64 ounces of liquid. However, powder and liquid can be purchased separately. Pink-fibered powder is also available for use with complete or removable partial dentures. A technique manual for the fabrication of nightguard, and sleep apnea appliances is available from the manufacturer upon request.

**Manufacturer:**

Vernon-Benshoff Company  
 413 North Pearl Street  
 Albany, NY 12207  
 (800) 833-2343  
 (518) 434-3147  
 (518) 434-1288 FAX  
[www.vernon-benshoff.com](http://www.vernon-benshoff.com)

**Suggested Retail and Government Prices:**

Item	Retail Price	Government Price
Set of Clear (1 lb. of powder and 11 oz. of liquid)	\$54.00	\$48.60
Set of Clear (6 lb. of powder and 64 oz. of liquid)	\$209.00	\$188.10
Set of Pink Fibered (1 lb. of powder and 11 oz. of liquid)	\$65.00	\$58.50
Set of Pink Fibered (6 lb. of powder and 64 oz. of liquid)	\$250.00	\$225.00

**ADVANTAGES:**

- + Increased patient comfort compared to traditional hard acrylics.
- + Minimizes the need for cast blockout during fabrication.
- + Bonds well to conventional acrylics.
- + Polishes easily when cold.
- + Makes it quicker to insert appliances.

**DISADVANTAGES:**

- Labor-intensive process for laboratory personnel.
- Technique sensitive to work with.

- Is cloudy after processing; must dry thoroughly to become clear.
- More time-consuming than other nightguard techniques.
- Not shipped with MSDS.
- Comprehensive instruction booklet must be requested from manufacturer.

**SUMMARY AND CONCLUSIONS:**

Impak was well accepted by patients and providers for its fit and comfort. Laboratory technicians found the Impak technique required 1 to 2 more hours of fabrication time than existing nightguard fabrication techniques. The Impak technique includes the wax-up, flask, boilout, split-pack with hard acrylic, and curing procedures to fabricate a nightguard. After curing, the material is cloudy and must be allowed to dry completely to turn clear. The resiliency of the Impak material at intraoral temperatures allows nightguards to be fabricated with only major undercuts blocked out. Although more time is necessary when fabricating appliances with Impak, the material's resiliency results in a more comfortable appliance.

**Impak Acrylic** is rated **Acceptable** for use by the federal dental services.